RIORDAN'S WELL WILDERNESS STUDY AREA

1. THE STUDY AREA - 57,002 acres

The Riordan's Well WSA (NV-040-166) is located in the Grant Range in east-central Nevada in Nye County approximately 50 miles southwest of Ely, Nevada. The WSA is located within both the Ely and Battle Mountain BLM Districts.The entire WSA is comprised of public lands with no private or State inholdings.

The boundaries of the WSA are formed by dirt roads with the exception of a 4-mile portion on the southwest side where the WSA is contiguous with the administrative boundary of the Quinn Canyon unit of the Humboldt National Forest. The Grant, Heath, and Cold Spring Canyon Roads form the unit's western boundary, and the Wells Station Summit Road forms the northern boundary. The Big Spring road and various jeep trails define the southern boundary of the unit. The WSA is contiguous with the Forest Service managed Grant Range Wilderness Area designated in 1989.

2. RECOMMENDATION AND RATIONALE - 0 acres recommended for wilderness
57,002 acres recommended for nonwilderness

The recommendation for this WSA is to release the entire area for uses other than wilderness due to a recommendation in the final mineral report. This report stated that the entire WSA is believed to have high potential for oil and gas. Developed oil fields exist to the west of the unit in Railroad Valley. There are also some conflicts with other resource uses occurring within the unit. While the WSA is not currently used for any extractive commercial purposes, mineral potential has been rated as moderate throughout much of the southern portion of the WSA. This part of the WSA is near the historic Troy mining district, where the geologic structure is favorable for containing host rocks for precious metals.

While the core of the WSA has high wilderness values, the lower elevations have fewer wilderness qualities. The lower foothills on the north lack interesting features, and have other resource uses such as potential forestry product harvest and more intensive grazing developments such as chainings. The foothills and alluvial benches on the southeast of the WSA contain the majority of roads and ways that penetrate the unit as well as most of the area slated for more intensive range development. Topographic and vegetative screening here is very limited and wilderness values are relatively low. The sparsely vegetated and open terrain provides good access and the ability to manage these areas, while not impossible, would require frequent seasonal patrols to regulate the off-road vehicle use.

3. WILDERNESS CHARACTERISTICS

A. Naturalness: Most of the Riordan's Well WSA is in a highly natural condition. The central portion of the range is extremely rugged with elevations ranging from below 5,000 feet to 9,352 feet on Heath Peak. Remote basins within the unit are enhanced by pristine riparian settings and isolated stands of old growth pinyon pine and mahogany. The mountainous portions are a maze of peaks, outcrops, and drainages which support a variety of conifer and wildlife species, each adapted to their particular niche. The roadless nature of the interior of the unit has preserved the rugged naturalness in this portion of the Grant Range. Around Heath Peak, white limestone cliffs provide colorful contrast with the dark green forest canopy. These cliffs, risen from an ancient sea, have left a legacy of unexplored caves and arches for the wilderness visitor. The huge scale of the terrain is nowhere more obvious than on the north face of Heath Peak, where a giant rock slide has effaced the forest cover from peak to base. East of Heath Peak, a cirque-like bowl nestled among the mountain peaks is another attraction for the visitor. To the northeast, an area of red and yellow sandstone hills provides a pleasing contrast to the limestone crags surrounding the higher peaks.

Manmade intrusions include two spring developments at Lower Perish and Albert Springs; a small drift fence just south of Heath Spring; and several roads and ways mostly used by hunters and livestock operators. These roads and ways are concentrated mainly along the eastern bench and among the southeastern foothills and have very little or no impact on the perceived naturalness of the area as a whole, due to the rugged topography and dense vegetative screening.

B. Solitude: Solitude is a guaranteed quality in the mountainous part of the WSA, and opportunities for enjoying it are outstanding. The mountains are not a single ridgeline; instead, they occur as a number of interconnected but distinguishably separate peaks over an area that has both breadth and length. Undulating mountain slopes are blanketed by nearly solid pinyon and juniper forests, here and there briefly interrupted by the bright green of manzanita thickets. At the higher elevations white fir, limber pine, and ponderosa pines are found, enhancing vegetative screening to the extent that a secluded place can be found almost anywhere. The dense tree cover over most of the mountain mass enhances screening to the extent that a secluded place can be found almost anywhere. Because of this more than adequate screening, the lack of any single destination point with strong drawing power, and the large number of hiking routes into the core of the WSA, this high level of opportunity could be sustained even with fairly heavy use. Opportunities for solitude at the lower elevations of the WSA are not of the same high quality. As the mountains give way to gently sloping benchlands and foothills and the thick tree canopy gives way to open woodland, screening, both topographical and vegetative, decreases.

C. Primitive and Unconfined Recreation: Many forms of recreation can be pursued in the WSA, including hiking, hunting, backpacking, nature study, photography, and trapping. While there are good opportunities for all of these, neither their quality nor their diversity, is considered to be outstanding.

The quality of recreation opportunities varies with topography. In the mountainous areas, opportunities are quite good, made so by the variety in landform and natural features. Visual satisfaction is provided by large rock outcrops, steep cliffs, undulating mountain slopes blanketed by nearly solid pinyon and juniper forests, here and there briefly interrupted by the bright green of manzanita thickets. At the higher elevations there are white fir and limber pine, and to the west of Heath Peak, ponderosa pines, which are uncommon due to the low precipitation and historic logging in this region. Any recreationist intrepid enough to venture into this rarely visited area should be uplifted by this unspoiled mountain setting. Opportunities for primitive and unconfined recreation are lower on the less well vegetated and topographically diverse benchlands.

D. Special Features: Bighorn sheep which range into the WSA from the Forest Service unit to the south are considered a special feature. Bighorn sheep once driven close to extinction are now being reintroduced to much of their former range, including the Grant Range. The high peaks and outcrops of the WSA provide excellent habitat for the bighorn sheep to reestablish their former range. The isolated stands of ponderosa pine are another special feature of the unit. The ponderosa pine is a relict species in this portion of the Great Basin and the stands provide a source for genetic diversity.

4. MANAGEABILITY

Management of the WSA as wilderness would be possible with little cost or effort. The core of the area has good unit-configuration coupled with rugged topography provide for an area that is relatively inaccessible to off-road vehicles. Recreation use is expected to remain fairly low into the foreseeable future so that little effort would need be expended to monitor recreationists and their impacts. Near the boundary of the WSA, mineral and energy exploration and development is expected to take place in the future. Manageability problems could stem from the development of a small mine on the southern boundary of the unit that would disturb the wilderness values. Boundary roads would have to be patrolled to ensure that unauthorized harvesting of posts and fuelwood does not occur. Gentle terrain, good quality woodland products and easy access make the area inviting for woodcutters. In addition, the open nature of the terrain provides for easy access to off-road vehicle

use.

5. ENERGY AND MINERAL RESOURCE VALUES

The U.S. Geological Survey and the Bureau of Mines (USGS/BM) prepared a mineral-assessment report for the Riordan's Well WSA in 1988 (U.S. Geological Bulletin 1731-H). The report rates the entire WSA as having high potential for energy resources (oil and gas). Potential for geothermal resources is considered low in the assessment. The high energy resource rating is based on a recent report issued by the USGS entitled "Petroleum Potential of Wilderness Lands, Nevada" (Charles A. Sandberg, Miscellaneous Investigation Series, I-15-42) as well as the occurrence of producing oil fields to the west in Railroad Valley. The USGS/BM assessment had some basic differences with the earlier mineral evaluations used for the Egan Final Wilderness EIS. The most important difference was the reversal of the low potential rating for energy resources to high potential. The USGS/BM high potential rating was based largely on the study of thermal maturation of source beds (Sandberg, 1983). While some of the WSA is under energy leases, little interest by the industry has been demonstrated in the area.

The USGS/BM assessment indicated that much of the WSA has low potential for the occurrence of geothermal and metallic mineral resources. Two small areas which form a discontinuous band from the southern portion of the unit into the east-central portion are rated as having moderate potential for the occurrence of disseminated gold deposits. The report also identified two small areas on the western portion of the WSA, between Grant and Heath Canyons, as having moderate potential for the mineral resources of gold and silver; tungsten and base-metal deposits (copper, lead, zinc, molybdenum).

6. SUMMARY OF WSA-SPECIFIC PUBLIC COMMENTS

During the inventory phase there was one comment received mentioning the unit had potential for oil and gas. This was carried forward into the study phase. Other issues raised during the study phase included the area's importance since it was contiguous to the U.S. Forest Services's Grant Range unit which was at that time proposed for wilderness, that the area had potential for oil and gas and gold and that designation could hurt economically important industries.

During public review of wilderness recommendations, a total of 55 comments were received specifically addressing the Riordan's Well WSA. In general, 50 commentors supported wilderness designation for all or part of the WSA and 4 commentors supported no wilderness for the WSA. Those favoring wilderness commented on the area being an important link between another BLM WSA and the Forest Service's Grant Range proposal; wildlife values, scenic and rugged high country, caves, ponderosa pine, minimal conflicts and unproven minerals. Comments opposing wilderness designation mentioned mineral, oil and gas potential and suggested that designation could hurt the area's economy. A comment from the Duckwater Shoshone Tribe did not specifically support designation or nondesignation of wilderness for the Riordan's Well WSA.